

FACTOR

$a=1$

~~$$\begin{array}{r} 10 \\ 5 \times 2 \\ +7 \end{array}$$~~

[T]: factor

① $x^2 + 7x + 10$
 $(x+5)(x+2)$

$x^2 + 2x + 5x + 10$

④ $x^2 - 11x + 30$
 $(x-6)(x-5)$

$\begin{array}{r} 1 \quad 30 \\ 2 \quad 15 \\ 3 \quad 10 \\ 5 \quad 6 \end{array}$

quadratic expressions

② $x^2 + 6x + 8$
 $(x+4)(x+2)$

③ $x^2 + 10x + 9$
 $(x+1)(x+9)$

⑤ $x^2 - 8x + 12$

$(x-6)(x-2)$

$\begin{array}{r} 6 \quad 2 \\ 3 \quad 4 \\ 1 \quad 12 \end{array}$

⑥ $x^2 - 11x + 18$

$(x-2)(x-9)$

$\begin{array}{r} 1 \quad 18 \\ 2 \quad 9 \\ 3 \quad 6 \end{array}$

⑦ $x^2 - 4x - 5$
 $(x+1)(x-5)$

$\begin{array}{r} 5 \quad 1 \end{array}$

⑧ $x^2 + 7x - 30$
 $(x+10)(x-3)$

$\begin{array}{r} 1 \quad 30 \\ 7 \quad 15 \\ 3 \quad 10 \end{array}$

⑨ $x^2 + x - 56$
 $(x+8)(x-7)$

⑩ $x^2 - 4x - 32$
 $(x+4)(x-8)$

⑪ $x^2 + 7x - 8$
 $(x+8)(x-1)$

⑫ $x^2 - 6x - 27$
 $(x+3)(x-9)$

★ Look at last #!
 Last # is +
 $(x+ \quad)(x+ \quad)$

Last # is neg
 $(x+ \quad)(x- \quad)$

Last # is +
 $(x- \quad)(x- \quad)$

middle # is +

middle # is -

Algebra 1

Lesson 6 and 7 Notes

Name: _____

Date: _____

Worksheet generated at www.math.com

1.) $x^2 - 5x + 4 = 0$

$$(x - 4)(x - 1) = 0$$

2.) $x^2 + 6x = 0$

$$(x + 0)(x + 6) = 0$$
$$x(x + 6) = 0$$

3.) $x^2 + 5x - 66 = 0$

$$(x + 11)(x - 6) = 0$$

4.) $x^2 + 2x - 15 = 0$

$$(x + 5)(x - 3) = 0$$

5.) $x^2 - 11x + 10 = 0$

$$(x - 10)(x - 1) = 0$$

6.) $x^2 + 3x - 4 = 0$

$$(x + 4)(x - 1) = 0$$

7.) $x^2 - 11x + 10 = 0$

$$(x - 10)(x - 1) = 0$$

8.) $x^2 - 4x - 60 = 0$

$$(x - 10)(x + 6) = 0$$

9.) $x^2 + 3x - 18 = 0$

$$(x + 6)(x - 3) = 0$$

10.) $x^2 - 3x - 54 = 0$

$$(x - 9)(x + 6) = 0$$

11.) $x^2 - 2x - 15 = 0$

$$(x - 5)(x + 3) = 0$$

12.) $x^2 - 6x + 8 = 0$

$$(x - 4)(x - 2) = 0$$

13.) $x^2 - 20x + 96 = 0$

$$(x - 12)(x - 8) = 0$$

14.) $x^2 + 8x + 0 = 0$

$$(x + 0)(x + 8) = 0$$
$$x(x + 8) = 0$$